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Title *Estimation of In-band Radar Cross Section (RCS) of Phased Array with Parallel-Feed Network*

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Abstract

In this report, the RCS of phased array with parallel-feed network is estimated using Jenn's approximate model. The normalized RCS of linear and planar array are calculated and validated against those available in open literature. The location and the levels of the RCS lobes/contours, their dependence on (i) the number of antenna elements, (ii) the spacing between the elements, (iii) the beam scanning and (iv) the level of couplers are analyzed.